REMARKS

I. Overview

These remarks are set forth in response to the Latest Non-Final Office Action. Presently, claims 24-41 are pending in the Patent Application. Claims 1-23 have been cancelled. Claims 24, 30, and 36 are independent in nature. In the Latest Non-Final Office Action, claims 24-41 have been rejected under 35 U.S.C. § 103.

In response, *although Applicants disagree with the rejections, Applicants have modified the language of the claims in an effort to even more clearly recite the Applicants' invention and to facilitate prosecution. No new matter has been introduced.*

II. Applicants' Invention

As set forth in paragraph [0018] of the Applicants' specification, the Applicants' invention provides a method, system and program product for managing processes. To this extent, the invention seeks to more effectively allocate resources so that a more beneficial performance improvement is achieved for the processes. Specifically, under the invention, resources are dynamically allocated to

processes based on a set of available resources and an anticipated benefit for each process. For example, a set of available resources can be identified, and an anticipated benefit that each process would obtain from the set of available resources can be determined. The anticipated benefit can be based on actual performance improvements that were obtained from one or more previous allocations of the same or similar set of available resources to the process and stored in a benefit knowledge base.

In this manner, the invention provides an autonomic solution that learns how best to allocate resources as they are used by various processes over time. Some or all of the available resources can then be allocated to one or more of the processes that should yield the most improvement based on the previous performance improvements. All processes or a subset of processes can be considered to receive the set of available resources. For example, a set of lagging processes can be determined, and the set of available resources can be allocated to one or more lagging processes that should yield the most improvement. As a result, the invention provides an improved solution for allocating available resources to one or more processes.

III. Rejections Under 35 U.S.C. § 103

Claims 24-27, 29-33, 35-39, and 41 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 7,140,020 to McCarthy et al. ("McCarthy") in view of U.S. Patent Application Publication No. 2003/0149685 by Trossman et al. ("Trossman"); and claims 28, 34, and 40 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over McCarthy, Trossman, and Delp.

With respect to the Examiner's determination of obviousness, it is noted that the law of obviousness under 35 U.S.C. § 103(a) and the Examination Guidelines set forth in M.P.E.P. 2141 (specifically, rationale (A) of M.P.E.P. 2141) **require Examiner to locate all claimed teachings in the combination of cited references**.

Independent claims 24, 30, and 36 pertain to managing processes. Exemplary claim 24 recites as follows:

> 24. A method, performed by a computer hardware system, of managing a set of processes and a set of resources within the computer hardware system, comprising:
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> identifying, from the set of processes within the computer hardware system, a plurality of lagging processes;
>
> identifying, from the set of resources within the computer hardware system, a plurality of available resources that are available for use by the plurality of lagging processes;

> calculating, for a particular one of the plurality of lagging processes, a calculated benefit to be realized upon a particular one of the plurality of available resources being assigned to the particular one of the plurality of lagging processes, the benefit being calculated based on actual performance improvements that were obtained from one or more previous allocations of the same or similar set of available resources to the particular process;
>
> comparing the calculated benefit for the particular one of the plurality of lagging processes with other calculated benefits for others of the plurality of lagging processes being assigned the particular one of the plurality of available resources; and
>
> assigning, within the computer hardware system and based upon the comparing, the particular one of the plurality of available resources to a selected one of the lagging processes.

Integral to claim 24, and also claims 30 and 36 which recite similar operable limitations, is the calculation, for a particular one of the plurality of lagging processes, a calculated benefit to be realized upon a particular one of the plurality of available resources being assigned to the particular one of the plurality of lagging processes, and the calculation of the benefit based on actual performance improvements that were obtained from one or more previous allocations of the same or similar set of available resources to the particular process. So much is absent from the combination of the cited references.

Of note, in Applicants' previous Response dated March 10, 2010 (the "Response"), Applicants argued that neither McCarthy nor Trossman teaches allocating resources based upon a comparison of calculated benefits for multiple

lagging processes. In response, Examiner stated in the Latest Non-Final Office Action, at page 7, the following:

> As stated in the rejection above, Para 93, 95-96 of Trossman teaches preference values. The preference value corresponds to the benefit value because the preference value indicates how the system would change if the resources were provided. It includes things like the amount of processing power that would be gained if the resource is assigned and how likely the process is able to meet its objectives if the resources are given. Resources are then allocated based on the preference values.

Thus, Examiner referred to paragraphs [0093] and [0095]-[0096] of Trossman in support of Examiner's rebuttal.

For the convenience of the Examiner, paragraphs [0093] and [0095]-[0096] of Trossman are reproduced herein as follows:

> [0093] A decision analyzing mechanism 528 in the decision search mechanism 514 determines a quantitative preference for the result that would be provided if the changes indicated in a branch of the decision tree were to be implemented. The quantitative preference is determined according to a quantitative assessment of various properties of the results produced by the changes.
>
> [0095] A quantitative preference analysis for the preference of a solution represented by a branch in the decision tree is based on properties of the solution such as an estimated processing power utilization, idle resources, a resource change threshold and current processing power utilization and probability of not meeting the operating objective for an application environment. The quantitative preference analysis may be based on business objectives, such as service level or operating objective optimization. Different business objectives may lead to different methods of performing the quantitative preference analysis.
>
> [0096] A processing power utilization mechanism 526 in the decision analyzing mechanism 528 determines a preference value for each resource group affected by a decision represented by a branch based on the amount of processing power currently being used in comparison to the total processing power available to that group. The processing power utilization preference values are determined so that

> branches that have processing power utilization at a desired target value are favored whereas other branches are penalized.

A review of the above cited passages of Trossman will reveal the following deficiency in Examiner's interpretation of the scope of Trossman. Specifically, Trossman teaches determining the preference of a solution or a preference value for each resource group. Therefore, in Trossman the "preference" refers to a solution (consisting of resources) or a resource. In comparison, in the Applicants' invention the "benefit" refers to a particular one of the plurality of lagging processes, not a resource. Therefore, Trosman does not tech calculating, for a particular one of the plurality of lagging processes, a calculated benefit to be realized upon a particular one of the plurality of available resources being assigned to the particular one of the plurality of lagging processes.

In addition, Applicants believe that the cited references further do not teach that the benefit is calculated based on actual performance improvements that were obtained from one or more previous allocations of the same or similar set of available resources to the particular process, as recited in amended claim 24. Delp teaches in col. 2, lines 56-65 the following:

> The resource sharing or allocation methods of the present invention advantageously are used in situations where the resource allocator 102 for the

> resource 106 has limited access to global information, but needs to make a global decision about whether it can provide access to a resource. The controller 104 of the resource 106 determines how to charge for the use of this resource based on the past activities of the current arrival process 108.

As can be seen from the above, Delp teaches determining how to charge for the use of this resource based on the past activities of the current arrival process. However, this does not teach calculating benefit for a particular process and especially does not teach calculating benefit for a particular process based on actual performance improvements that were obtained from one or more previous allocations of the same or similar set of available resources to the particular process.

In view of the forgoing, Applicants believe that Examiner has failed to locate all claimed teachings in the combination of cited references. Accordingly, under the law and in particular rationale (A) of the Examination Guidelines and 35 U.S.C. § 103(a), Applicants submit that Examiner has not established a prima facie case of obviousness.

Independent claims 24, 30, and 36 are, therefore, believed to be patentable over the cited art and dependent claims are believed to be patentable as well at least due to their dependency on the independent claims.

IV. Conclusion

Applicants respectfully request the withdrawal of all the rejections owing to the foregoing amendment and remarks. Applicants request that Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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